

ABSTRACT OF THE DISCLOSURE

A liquid crystal display device has a liquid crystal panel comprised of a liquid crystal material disposed between segment and common electrodes defining pixels arranged in a matrix. A driver integrated circuit generates driving segment signals and driving common signals to drive preselected ones of the segment and common electrodes, respectively, to display an image on the liquid crystal panel. The driver integrated circuit also generates a segment signal waveform and a common signal waveform to drive one of the segment electrodes and one of the common electrodes, respectively, each placed in a normally ON state and not corresponding to the preselected ones of the segment and common electrodes, respectively, so that a frame is displayed at a portion of the liquid crystal panel not corresponding to the pixels.